

Appln No. 10/800,387
Amdt date January 8, 2008

Amendments to the Claims: OK TO ENTER: /MCT/ 01/16/2008

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. Cancelled
2. Cancelled
3. Cancelled
4. (Previously Presented) A gray-scale representation method for a plasma display panel, comprising:
arranging, in time sequence, a plurality of subfields each having a brightness weight, and achieving gray-scale representation by a combination of the one or more of the plurality of subfields, each subfield of the plurality of subfields including an address period and a sustain period, an address pulse generating light being provided during the address period and sustain pulses generating light being provided during the sustain period, the gray-scale representation including gray scales ordered from a minimum gray scale value to a maximum gray scale value, a light corresponding to each gray scale including a light discharged during all of the address periods and all of the sustain periods of the subfields combined together to represent the gray scale, between every two adjacent gray scales, one gray scale of the two adjacent gray scales being a lower gray scale corresponding to a lower light and the other gray scale of the two adjacent gray scales being a higher gray scale corresponding to a higher light; and
determining the number of sustain pulses for each subfield so that a light corresponding to the higher gray scale of two adjacent gray scales is greater than a light for the lower gray scale, and

wherein the number of sustain pulses for each subfield is determined to make the number of sustain pulses for the higher gray scale of the two adjacent gray scales equal to the number of sustain pulses for the lower gray scale when the number of subfields for the higher gray scale is greater than the number of subfields for the lower gray scale.

5. (Previously presented) The gray-scale representation method as claimed in claim 4, wherein a number of sustain pulses corresponding to a subfield of the subfields having a brightness weight of 1 is determined as zero so that a light for a minimum gray scale comprised of the subfield having the brightness weight of 1 is the light discharged in the address period.

6. (Canceled)

7. (Previously Presented) A method of gray-scale representation for a plasma display panel, comprising:

arranging a plurality of subfields each having a brightness weight and each including an address period and a sustain period, light being generated during the address period and during the sustain period, the brightness weight corresponding to the light generated during the sustain period, the light generated during the sustain period corresponding to a number of sustain pulses occurring during the sustain period;

obtaining the gray-scale representation from one subfield or from a combination of two or more of the subfields, the one subfield and the two or more of the subfields being selected subfields from among the plurality of subfields, the gray-scale representation including gray scales, each gray scale corresponding to a light generated during the selected subfields, the light generated during the selected subfields including a summation of the light generated during the address period of each subfield of the selected subfields and the light generated during the sustain period of each subfield of the selected subfields; and

determining the number of sustain pulses occurring during the sustain period of each of the plurality of subfields so that a first light corresponding to a first gray scale value is smaller than a second light corresponding to a second gray scale, the second gray scale being higher than

the first gray scale when a number of the selected subfields forming the first gray-scale is smaller than, equal to, or larger than a number of the selected subfields forming the second gray-scale.

8. (Previously presented) The method of claim 7,
wherein the second gray scale is consecutive to the first gray scale,
wherein the first gray scale is smaller than the second gray scale,
wherein first selected subfields of the selected subfields correspond to the first gray scale,
wherein second selected subfields of the selected subfields correspond to the second gray scale,
wherein the second selected subfields include fewer subfields than the first selected subfields, and
wherein a number of sustain pulses being generated during the sustain periods of the second selected subfields is greater than the number of sustain pulses being generated during the sustain periods of the first selected subfields.

9. (Previously presented) The method of claim 7,
wherein a first gray scale is smaller than a second gray scale,
wherein the second gray scale is consecutive to the first gray scale,
wherein first selected subfields of the selected subfields correspond to the first gray scale,
wherein second selected subfields of the selected subfields correspond to the second gray scale,
wherein the second selected subfields include a greater number of subfields as the first selected subfields, and
wherein a number of sustain pulses being generated during the sustain periods of the second selected subfields is equal to the number of sustain pulses being generated during the sustain periods of the first selected subfields.

10. (Previously presented) The method of claim 7,
wherein a first gray scale is smaller than a second gray scale,

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wherein the second gray scale is consecutive to the first gray scale,
wherein first selected subfields of the selected subfields correspond to the first gray scale,
wherein second selected subfields of the selected subfields correspond to the second gray scale,

wherein the second selected subfields include a same number of subfields as the first selected subfields, and

wherein a number of sustain pulses being generated during the sustain periods of the second selected subfields is greater than the number of sustain pulses being generated during the sustain periods of the first selected subfields.

11. (Previously presented) The method of claim 8,

wherein a light generated during one address period is not greater than a light generated by three sustain pulses,

wherein the second selected subfields include one subfield fewer than the first selected subfields, and

wherein the number of sustain pulses being generated during the sustain periods of the second selected subfields is greater than the number of sustain pulses being generated during the sustain periods of the first selected subfields by at least three.

12. (Previously presented) The method of claim 7,

wherein a brightness weight of one corresponds to zero sustain pulses during the sustain period of a subfield of the subfields having the brightness weight of one,

wherein the brightness weight of one corresponds to a light generated during the address period of the subfield having the brightness weight of one, and

wherein a minimum gray scale is obtained from the subfield having the brightness weight of one.

13. (Previously Presented) The method of claim 7, wherein the gray scales vary from 0 to 255.

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14. (Previously Presented) The method of claim 13, wherein the gray scale of 255 corresponds to 509 sustain pulses.